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ABSTRACT

Participation in outdoor recreation was the focus of this 1963 study involving 776 families representing a cross section of the urban and rural population of southern Ohio and nearby areas of West Virginia and Kentucky. The study was conducted to determine relationships between participation and characteristics in order to advise private individuals and public officials on present and future needs for recreational development. Data indicated that participation in outdoor recreation varied widely according to socioeconomic characteristics primarily related to education, occupation, and income of participants. The most popular activities were picnicking, sightseeing, swimming, and fishing. Lack of time was the most important factor limiting participation, followed by lack of money. (AN)

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OUTDOOR RECREATION:

Participation, Characteristics of Users, Distances Traveled, and Expenditures

GERALD P. OWENS

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CONTENTS

* * * * * * * * *

Introduction 3
Study Area 3
Sample 3

Participation in Outdoor Recreation 3
Household Participation Rates 5
Family Participation by Residence and Race 6
Overall Participation by Heads of Households 7
Participation at Commercial Facilities 7
Outdoor Recreation at Home 9

Travel and Outdoor Recreation 10
Distance and Travel Time 10

Characteristics of Participants 11
Age, Sex, Race, and Residence 11
Age 12
Sex 12
Race 12
Residence 14
Education and Occupation 15
Education 15
Occupation 16
Income, Expenditures, and Life Cycle 17
Family Income 17
Expenditures for Outdoor Recreation 19
Family Life Cycle 20
Other Factors Associated with Participation 20
Favorite Activity 20
Leisure Time 21
Factors Limiting Participation 21

Summary 22

Appendix 23

Outdoor Recreation: Participation, Characteristics of Users, Distances Traveled, and Expenditures

GERALD P. OWENS

INTRODUCTION

A great deal of expansion and development of outdoor recreational facilities is occurring in response to the rapid increase in demand for outdoor recreation. Much of this expansion is in private facilities, although considerable development of public parks, lakes, and other facilities is underway. Many landowners and other business-oriented citizens have foreseen promising opportunities in this field and are investing in recreational businesses.

Population trends and projections of economic data to future times[1] point to a continuing increase in the use of leisure time for outdoor recreation. Recreation as an industry is becoming more and more important to the economy. Recreation as a means of using increasing leisure time is becoming more and more important to society.

The need for planning in the field of outdoor recreation is readily apparent on an individual enterprise basis, as well as on a national and regional basis. Useful planning can be accomplished only by using accurate and meaningful information.

A previous study in this series[2] described various outdoor recreation enterprises in terms of costs, returns, capital and labor requirements, profits, and management problems. The purpose of this study is to deal with aspects of demand for outdoor recreation. Analysis of characteristics of recreationists, their willingness to travel, their ability and willingness to pay for facilities, their preferences, and their actual participation will help operators and planners in coping with the myriad problems associated with the development of outdoor recreation facilities.

Study Area

The study area consisted of 52 counties in Ohio, 12 counties in Kentucky, and 8 counties in West Virginia (Fig. 1).

Terrain ranges from the fertile Corn Belt area of western Ohio to the rugged areas of southern Ohio, Kentucky, and West Virginia. The study area contains such sparsely populated areas as Noble and Vinton counties in Ohio and Mason County, West Virginia, as well as heavily populated areas such as Columbus and Cincinnati, Ohio.

Sample

A total of 800 questionnaires or schedules were completed by interview with a random sample of households in randomly selected counties in the study area in March 1964. The sample was stratified by rural-urban residence and the urban segment was further stratified by size of city. Thus, the proportions of rural and urban households in the sample were approximately equal to the true proportions of rural and urban households in the entire study area. In addition, households from various size cities and towns were proportionately represented by the sample.

There were 776 usable schedules. Although these schedules contained information from only a small percentage of the households in the study area, fairly concise conclusions about the overall area can be drawn. The number of schedules necessary to provide reliable results was determined before the study was undertaken and statistically acceptable procedures were employed throughout.

While inferences and conclusions from this study apply only to the study area (Fig. 1), the results should be of value in other similar areas.

PARTICIPATION IN OUTDOOR RECREATION

Outdoor recreation has been defined as the use of leisure time outdoors. Since this study was concerned with economic aspects of outdoor recreation, emphasis was placed on activities requiring some expenditure of money as well as time. The 14 activities in this study make up a large proportion of all outdoor recreation in America. A catch-all category, labeled "other" for convenience, reflects all other forms of outdoor recreation—about 9 percent in terms of total participation in outdoor recreation.

The outdoor activities used in this study were:

Sightseeing: Looking at something of interest, with the major limitation that the sightseeing must be intentional. Excluded were such things as casually looking from the car window during a trip. If the person took a particular route or went out of his way to see a particular sight, it was classified as sightseeing. Excluded were activities such as window shopping where the emphasis was not on the outdoors.

Swimming: The ability to swim was not necessary for inclusion under this activity. Bathing or play-

[1]For example, see Outdoor Recreation for America, Outdoor Recreation Resources Review Commission, Washington, D. C., Jan. 1962.

[2]Owens, Gerald P. 1964. Income Potential from Outdoor Recreation Enterprises in Rural Areas in Ohio. Ohio Agri. Exp. Sta., Res. Bull. 964.

ing in the surf and surfboarding were included, but skindiving or scuba diving and water skiing were listed under separate categories.

Picnicking: Outdoor activity away from home, with the primary purpose of preparing or eating a meal outdoors. Other activities often are associated with picnicking.

Power Boating: The recreational use of outboard or inboard motorboats, power launches, and yachts. Canoes, sailboats, rowboats, houseboats, rafts, and floats were excluded.

Canoeing, Rowing, or Sailing: Recreational use of canoes, rowboats, and sailboats.

Golf: Excluded miniature golf, archery golf, and activities at driving ranges and putting greens.

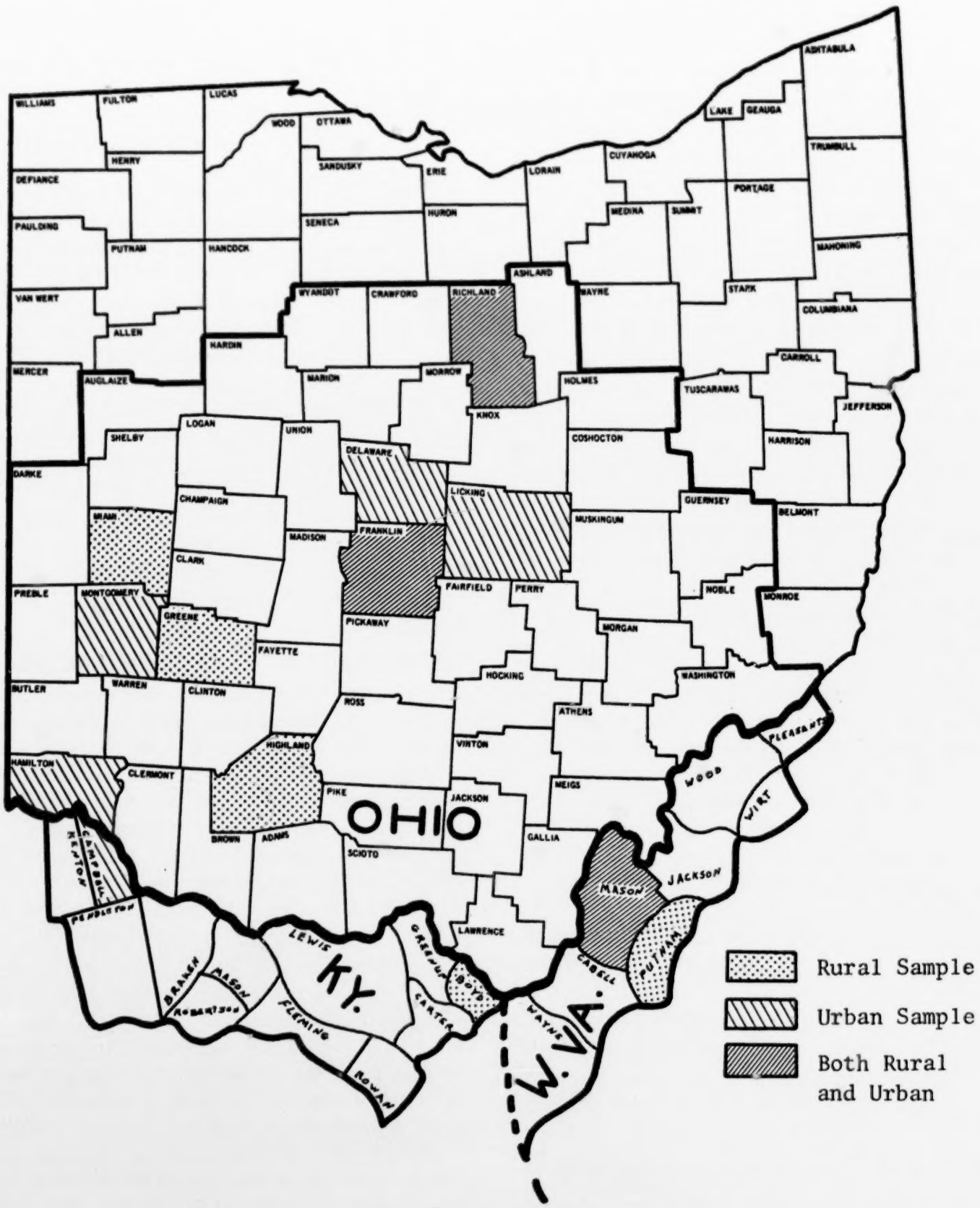


Fig. 1.—Study Area.

Fishing: The taking of fish for noncommercial purposes. Spearfishing while skindiving was included. Fishing for commercial purposes or other nonsport fishing was not included.

Hunting: The search for or stalking of animals in order to kill them for recreation purposes. Commercial hunting was not included.

Horseback Riding: Only recreation riding. Riding to or from work or school or riding as part of a job such as a cowboy or mounted policeman was not included.

Camping: Living outdoors using for shelter a bed roll, sleeping bag, trailer, tent, or a hut open on one or more sides, if the person took his bedding, cooking equipment, and food with him. Camping is often done in combination with other activities such as fishing, hunting, etc. When such a combination was reported, all associated outdoor activities also were recorded. Organized camping, such as Boy Scout camps, was not included.

Water Skiing: Any sport where the person was towed behind a boat. This included the use of aquaplanes, water skis, or any similar apparatus.

Skin Diving and Scuba Diving: Underwater swimming with use of underwater breathing apparatus for recreational purposes. Excluded professional or occupational diving.

Ice Skating: Any noncompetitive recreational ice skating. Competitive skating including ice hockey and figure skating contests was included. Skating on indoor ice rinks, as well as professional or other nonrecreational skating, was excluded.

Snow Skiing: Included were noncompetitive recreational use of skis on snow. Amateur competitive skiing was included but professional skiing was not.

Other Outdoor Recreation Activities: This category included any other outdoor recreation activity not clearly classifiable into one of the above categories. Examples are: houseboating, skeet shooting, organized camping, gliding, horse-drawn buggy riding, trampoline jumping, farm vacationing, archery, skydiving, etc.

Appendix Table I summarizes participation in the *other* category.

Household Participation Rates

Two measurements of participation were used. Percent of the total population participating one or more times during the year shows the relative appeal or popularity of the activity. Average numbers of activity days per year per person and per participant show the relative levels of participation in the total population and among participants. For average activity days per year per person, total participation (in activity days) was divided by the total number of persons in the study. For average activity days per year per participant, total participation was divided by the number of persons who participated in the activity one or more times during the year.

An activity day is defined as a day or part of a day in which the person engaged in the activity one or more times. For example, one activity day of swimming was counted if the person went swimming one or more times during the same day. If the person went swimming in the morning and horseback riding during the afternoon, one activity day was counted for each activity.

This study included 2756 people of all ages in 776 households. Average size of household in the study was 3.55 persons compared to an average family size of 3.65 in Ohio. Each person participated at least once during the year in an average of 3.1 different outdoor activities. Total participation in all outdoor activities by all participants was 122,687 activity days —an average of 44.52 days per person or 14.38 days in each of the 3.1 activities.

Participation (in activity days per year) was determined for each household member and is presented for the entire family as well as in a breakdown by head, spouse, children, and other household or family members.

The most popular activities, in terms of percent of population participating one or more times, were picnicking, sightseeing, swimming, and fishing. The activities participated in most, in terms of activity days per year per person, were swimming, sightseeing, and picnicking (Table 1).

Golf and horseback riding were quite important from the standpoint of activity days per year per participant. Although only about 11.5 percent of the total population plays golf, those who do play averaged 19.3 activity days per year compared with picnickers who averaged only 8.7 activity days per year. However, since so many more people engaged in picnicking, total participation in picnicking was higher than for golf. It is estimated that in 1965 there were about 1,227,000 golfers in Ohio who accounted for 23,736,000 activity days of golfing. The estimated number of picnickers was 7,152,000 with 62,364,000 activity days of picnicking.[3]

Skindiving, snow skiing, and water skiing might be termed exotic sports and were engaged in by a relatively small percent of the total population. In the case of water skiers, however, the participation rate was relatively high—almost 12 times per year. The activities just mentioned are costly and are further restricted by the high level of skills and physical condi-

[3]Owens, Gerald P. 1965. Factors Affecting Demand for Outdoor Recreation. Unpublished Ph.D. Dissertation, The Ohio State University, Table 10, p. 77.

TABLE 1.—Percent of Population Participating in 14 Activities and Average Number of Activity Days per Year per Participant and per Person.

	Percent of Total Population Participating One or More Times per Year	Average Number of Activity Days per Year	
		Per Person	Per Participant
Picnicking	66.8	5.8	8.7
Sightseeing	63.4	10.2	16.1
Swimming	51.9	12.5	24.2
Fishing	29.6	3.6	12.2
Power Boating	15.6	1.7	10.9
Camping	11.8	1.0	8.3
Golf	11.5	2.2	19.3
Ice Skating	10.0	0.6	5.6
Hunting	8.4	0.7	8.7
Horseback Riding	6.6	0.9	13.2
Canoeing-Rowing-Sailing	6.1	0.3	5.1
Water Skiing	5.8	0.7	11.7
Snow Skiing	2.2	0.1	6.1
Skin Diving	0.7	0.1	6.6
Other	18.9	4.1	21.6

tioning required to participate. Their popularity seems to be increasing because of the prestige assigned to these activities and because increasing incomes and decreasing costs are bringing them within the range of more people's budgets.

The activities studied but not yet mentioned fall in a popularity range from picnicking down to skin diving or scuba diving if percent of the population participating one or more times per year is taken as a measure of popularity. By using average number of activity days per year per participant as a measure of how avid the participant is in his chosen activity, the activities can be arrayed from 24 activity days of swimming down to 5 days for canoeing-rowing-sailing.

Appendix Table II provides more detailed information on participation rates in the various activities by individual family members.

Appendix Table III shows what percent of the household's total participation in each activity was accounted for by each of the various family members. For example, heads of households did almost three-fourths of the hunting, children about one-fourth, and the spouses less than 2 percent. Appendix Table III also shows what percent of each individual family member's total outdoor participation was accounted for by each activity. On the average, sightseeing accounts for almost one-third of total outdoor participation of spouses while hunting accounts for only about 0.1 percent.

Family Participation by Residence and Race

An analysis of activity days per year per participant (for the various activities) by residence and race indicates that:

1. Urban and rural non-farm people participated more than rural farm people in most activities except hunting, camping, and "other" (Table 2). Participation rates in ice skating and camping were roughly comparable between the farm and non-farm groups. Recreation habits and rates for rural non-farm and urban participants were very similar.

2. Whites participated more than non-whites in all activities except sightseeing, fishing, and "other". The participation rate for hunting was similar for the two groups.

Reflection upon the context within which recreation takes place adds to the acceptability of the foregoing analysis. Rural farm people are generally exposed to the outdoors more than their city cousins. Although they may value outdoor experiences quite highly, they probably commune with nature enough while working and do not feel as much need to seek further outdoor experiences during their leisure time. Farm people also tend to subscribe to the work ethic more than urban people. The work ethic is an attitude which disparages "unconstructive" use of leisure time.

In general, whites face fewer social and economic barriers to recreation than non-whites. Sightseeing

TABLE 2.—Participation of All Family Members in Recreational Activities, by Residence and Race.

Activity	N*	Average Number of Activity Days per Participant					
		Residence				Race	
		Rural Non-Farm	Rural Farm	Urban	All Participants	White	Non-White
Sightseeing	1745	14.99	10.18	16.62	16.10	15.79	19.53
Swimming	1431	23.07	10.85	24.59	24.18	24.65	14.75
Picknicking	1840	7.21	6.73	8.97	8.72	8.78	7.70
Power Boating	431	14.58	3.46	10.63	10.90	11.19	3.18
Canoeing-Rowing-Sailing	169	2.90	—	5.20	5.06	5.07	3.00
Golf	316	20.05	—	19.29	19.34	19.47	15.30
Fishing	815	13.30	8.38	12.16	12.21	11.86	16.31
Hunting	232	9.45	11.15	8.13	8.66	8.63	9.00
Horseback Riding	183	8.30	4.85	13.87	13.23	14.24	2.62
Camping	326	6.97	12.42	8.38	8.32	8.34	3.50
Water Skiing	160	35.60	2.00	9.42	11.74	11.74	—
Skin Diving	20	—	—	6.60	6.60	6.60	—
Ice Skating	277	7.96	4.50	5.33	5.55	5.67	2.75
Snow Skiing	61	3.57	—	6.44	6.11	6.11	—
Other	521	10.37	40.12	21.94	21.57	21.11	24.82

*Number of observations for each activity.

and fishing are two activities in which these barriers probably are minimal for non-whites and consequently are participated in most by non-whites.

Table 2 gives details of participation by residence and race and shows average participation by all participants in the study for comparison.

Overall Participation by Heads of Households

Another analysis of participation involves average number of activity days (in all activities combined) by heads of households. All but four of the 776 heads of households reported some outdoor activity. The head of household influences family recreation as a participant (he accounts for about one-third of total family participation) as well as a decision maker.

Average total participation for all participants in the study was 44.52 activity days per year per participant. Heads of households averaged 42.8 activity days per year. They generally participated at a fairly high rate until about age 45, after which their rate began to decline somewhat; a sharp decline to a new plateau occurred at about age 55. Figure 2 shows this in detail.

Participation by heads of households usually increased with education (Figure 3). This may be due to higher incomes which are closely associated with higher education (Figure 4).

Participation at Commercial Facilities

Seven types of privately owned facilities provide most of the commercial recreation in southeastern Ohio and, along with privately owned marinas, most of the commercial recreation in Ohio.

Pay Fishing Lakes: Small ponds, usually man-made, stocked with mature fish, where patrons are allowed to fish for a fee. Retail sales of bait, tackle, and refreshments are usually made at pay lakes.

Vacation Farms: Ordinary farms which take in paying guests, usually only one family at a time. The appeal to guests is taking part in rural life as contrasted with the planned and organized activities of a dude ranch.

Shooting Preserves: For a fee, hunters are allowed to shoot upland game birds, and sometimes ducks, which have been artificially propagated and stocked in the shooting areas. Guides and dogs are furnished. Bird cleaning service and sales of ammunition are usually available.

Organized Camps: Dormitory housing, meals, supervised outdoor activities, crafts, and woodlore instruction are provided to youth groups, usually on a weekly fee basis.

Campgrounds: Tent and trailer spaces are provided for a fee. Sanitary facilities, water, and electricity are usually available.

Picnic Areas: Facilities for individual, family, or group picnicking, including tables, fireplaces, shelter, sanitary facilities, and water. The facilities must be privately owned; public parks are not included.

Riding Stables: Horses, saddles, trails, and instruction are provided for a fee. Horse boarding and training is a common sideline to this type of enterprise.

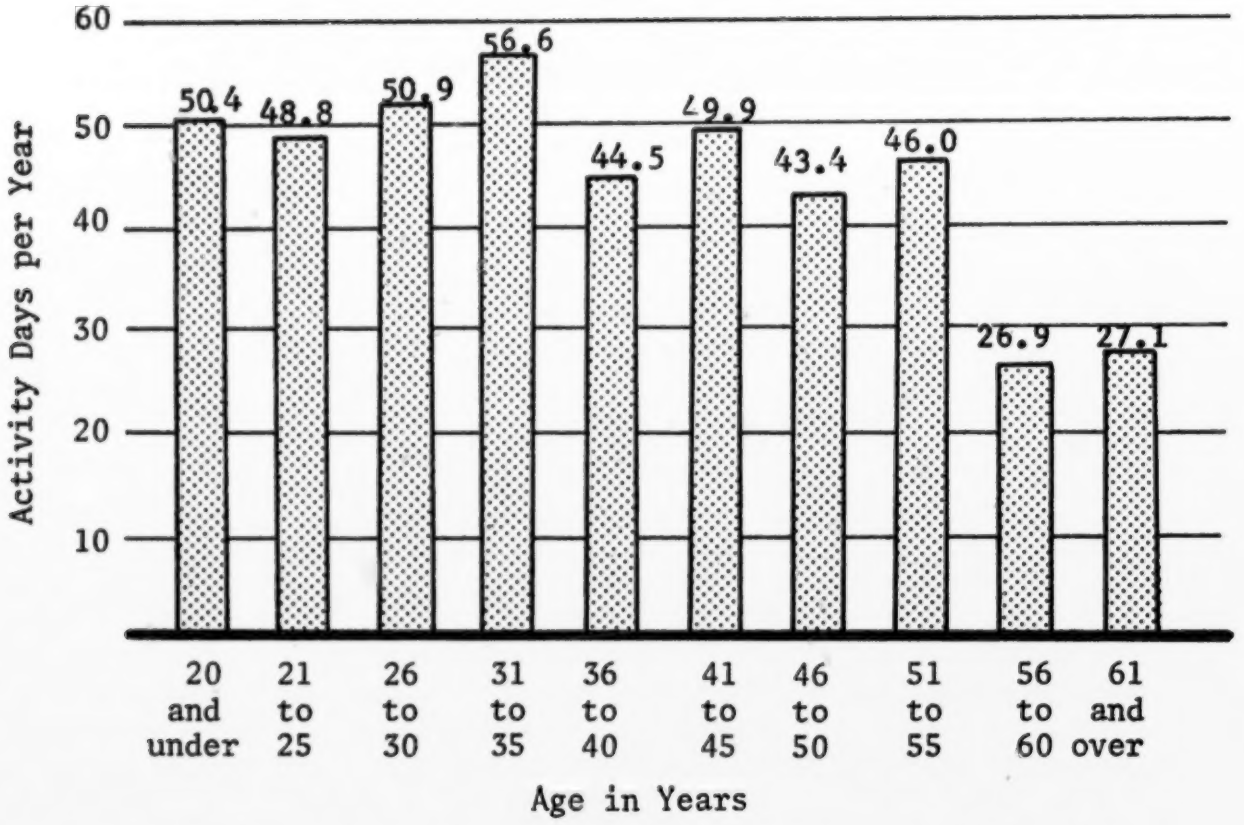


Fig. 2.—Relationship of Age and Participation of Head of Household.

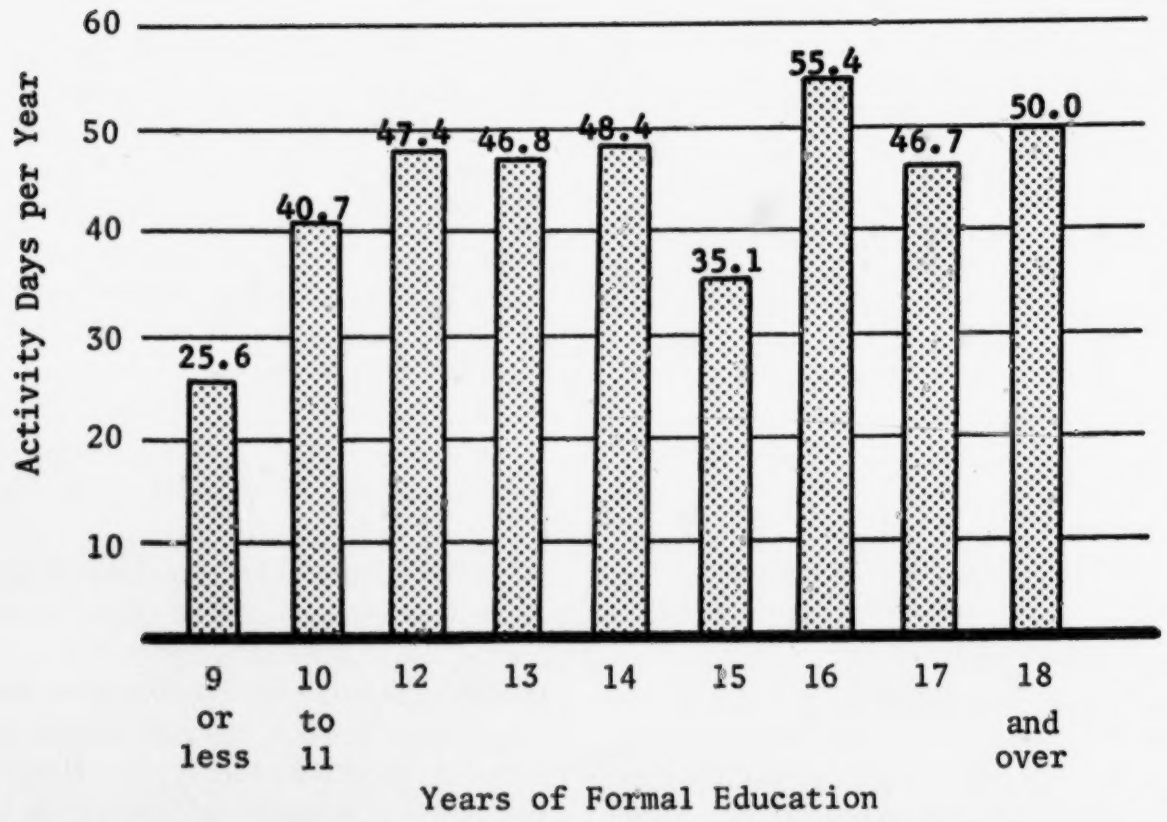


Fig. 3.—Relationship of Education and Participation of Head of Household.

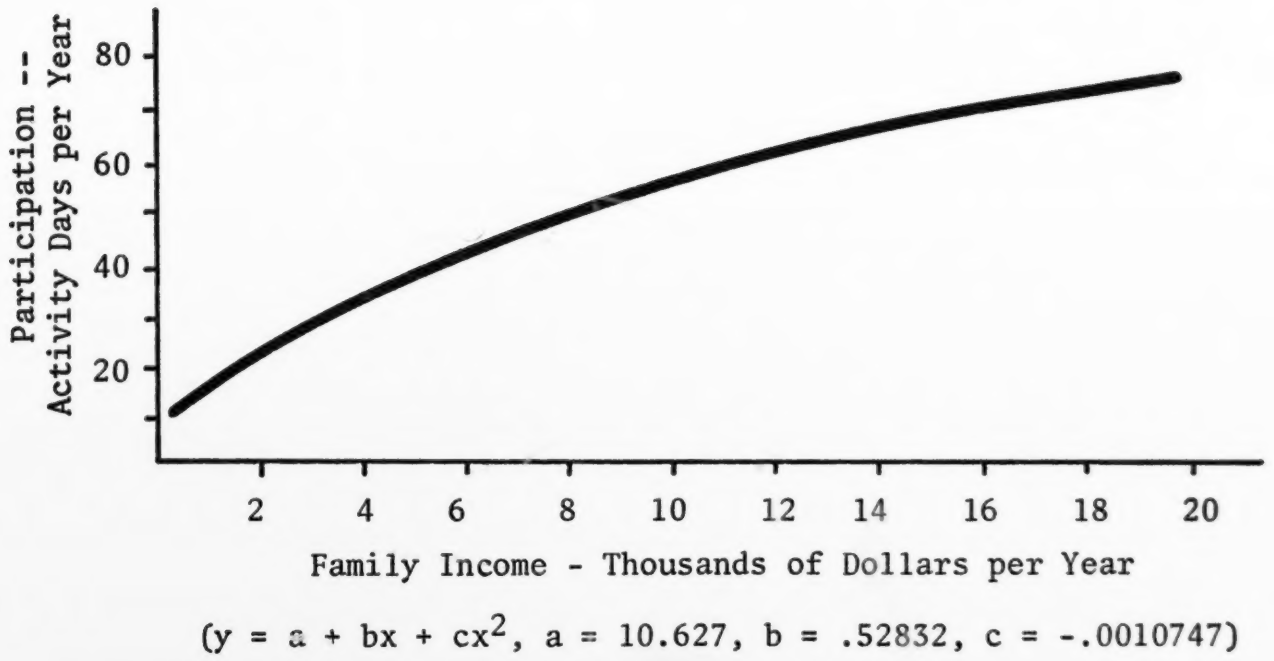


Fig. 4.—Relationship of Family Income to Overall Family Participation.

This study included an investigation of participation or attendance at these types of privately owned recreation enterprises. A previous study reported on costs, returns, capital requirements, and management techniques for these same businesses.[4]

In this instance, participation was measured as a recreation experience by any member of the family. For example, if an entire family went on two camping trips during the year, two participations would be counted even though they were gone a full week on each trip. A 2-hour stay at a pay lake by head of household was counted as one experience.

Pay fishing lakes and picnic areas attracted the highest percentage of households, while vacation farms and shooting preserves attracted the lowest (Table 3). Riding stables and pay lakes had the highest participation rate or number of participations per year. However, riding and fishing are relatively short-term experiences for which one participation would be counted each day. In the cases of organized camps, vacation farms, and campgrounds, one participation may, and probably does, account for up to 1 week or more of actual attendance.

[4]See footnote 2.

Outdoor Recreation at Home

Respondents were asked how often their families participated in certain outdoor activities in their own yards. The four activities, in order of their relative frequency or occurrence were: cookouts, badminton, horseshoes, and swimming. About 78 percent of the families surveyed participated at least once in one or more of these activities or listed some "other" activity.

TABLE 3.—Participation at Seven Types of Commercial Outdoor Recreation Enterprises.

Activity	Households Reporting One or More Participations During the Year		Number of Participations per Year		
				Average	
	Number	Percent*	Total	Per Household in Study	Per Household Participating
Pay Fishing Lakes	113	14.6	666	0.86	5.9
Vacation Farms	2	0.3	2	—	1.0
Organized Camps	70	9.0	152	0.20	2.2
Shooting Preserves	20	2.6	60	0.07	3.0
Campgrounds	33	4.3	152	0.20	4.6
Picnic Areas	89	11.5	328	0.42	3.7
Riding Stables	55	7.1	721	0.93	13.1

*There were 776 households in the study.

TABLE 4.—Number and Percentage Distribution of Participations in Outdoor Recreational Activities at Home.

	Never		Seldom (1-10 Days)		Occasionally (10-25 Days)		Frequently (25 or More Days)		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Cookouts	228	29.3	204	26.3	186	24.0	158	20.4	776	100.
Horseshoes	668	86.0	55	7.1	40	5.2	13	1.7	776	100.
Badminton	467	60.2	135	17.4	109	14.0	65	8.4	776	100.
Swimming	709	91.4	10	1.3	21	2.7	36	4.6	776	100.
Other	698	90.0	12	1.5	20	2.6	46	5.9	776	100.

About 70 percent of the households had at least one cookout and about 20 percent had 25 or more cookouts during the year. This activity was far more popular than the other activities (Table 4).

Less than 9 percent of the families swam in a pool in their yard but half of this 9 percent (4.6%) swam 25 days or more. The use of semi-permanent facilities such as plastic wading pools was included in this category.

Badminton and horseshoes were popular backyard activities. Ten percent of the families participated in other backyard activities but information was not obtained on what these activities were.

The data in Table 4 show the relative importance of the four activities. The "other" category is probably understated because respondents' recall was not stimulated by example. More activity in this category would be recorded if children's play had been included. Many popular adult pastimes, such as gardening, were not mentioned by name. Tether ball, archery, croquet, and many other activities were engaged in at home (Appendix Table I).

TRAVEL AND OUTDOOR RECREATION

Distance from prospective customers or participants is a major concern for planners and operators of facilities for outdoor recreation. One must know how much people participate, where they live, and how far they are willing to travel for the various outdoor experiences.

A generally applicable rule of thumb is that people travel farther for the longer term experiences. They will travel farther for camping, which usually lasts several days, than for swimming or picnicking, which usually last only a few hours.

Distance and Travel Time

Extensive data were obtained in this study on distances people traveled in order to participate in the 14 activities. Respondents were asked how far they usually traveled, one way, and how long it took to get there. Obtaining distance and travel time data for each participation in each activity was impractical because of limited interview time and because of difficulty of recall by respondents. Instead, each respondent reported the usual time and distance to the activity in which he participated. As a result, reported distances may tend to be understated in some categories due to the exclusion of unusual longer trips, such as vacation travel.

The shortest average and median distances were for ice skating, swimming, and golf (Table 5). These activities and picnicking are short-term activities which usually last less than 1 day. Facilities for these activities are relatively numerous and generally available within a few miles of most participants.

TABLE 5.—Miles Traveled and Average Travel Time for Participation in 14 Outdoor Activities.

	Mean	Median	Modal Range	Average Miles per Hour
Sightseeing	83.3	45	41-50	33.0
Swimming	14.2	5	1-2	26.9
Picnicking	21.5	15	7-10	30.2
Power Boating	55.1	15	7-10	36.4
Canoeing-Rowing-Sailing	76.6	25	7-10	42.2
Golf	8.6	7	7-10	29.5
Fishing	57.7	20	7-10	36.9
Hunting	78.4	40	41-50	39.6
Horseback Riding	34.7	15	7-10	33.7
Camping	124.1	60	71-100	37.8
Water Skiing	55.0	15	7-10	36.3
Skin Diving	77.0	15	—	34.6
Ice Skating	4.9	3	1-2	17.7
Snow Skiing	127.2	70	51-70	41.2

Longest average and median distances were for snow skiing, camping, and hunting. These are relatively long-term experiences, although one can go skiing or hunting in less than 1 day. There are relatively few ski slopes, however, and considerable travel is necessary for most skiers in the study area. Vacation type ski trips of several hundred miles are common. Many serious hunters make longer trips to better hunting areas.

Distance for sightseeing is understandably quite long, even though sightseeing is a relatively short-term experience. Distance lends enchantment and many sightseers bypass nearby attractions in order to visit more distant sites. Most sightseeing involves travel by automobile.

Average distance is total one-way mileage for the activity divided by number of trips. Average speed in miles per hour is also shown (Table 5).

About 50 percent of the participants traveled the median distance or less in order to participate. For example, 50 percent of all golfers traveled 7 miles or less in order to participate. The modal range is the range of distances in which most travel reports fell. Almost one-third of all swimming was within 1 to 2 miles. This is the modal range for swimming, since the next most frequently reported category was 7 to 10 miles (19 percent).

Average speed is closely related to average distance. The shortest average distance and slowest average speed were for ice skating. Longest average distance was for snow skiing, which had the second highest average rate of speed. A notable exception was sightseeing, which had a relatively slow average speed while being third highest in average distance. Sightseers travel slowly in order to take in the sights. Much of the travel for ice skating, swimming, and golf is in city traffic or on foot or bicycle, which explains the slower average speeds. Some longer trips such as skiing and hunting were by air or relatively fast automobile travel on freeways and turnpikes.

More than half of the outdoor recreation in the study area took place within 20 miles of participants' homes and a significant percentage occurred within 10 miles. Therefore, the areas of intense demand are within or very near population centers.

Appendix Table IV provides more detail and illustrates travel patterns.

CHARACTERISTICS OF PARTICIPANTS

Socio-economic characteristics of recreationists are important to an understanding of recreation preferences, habits, and patterns.

Two types of analysis of characteristics were undertaken. First, participants in the various outdoor activities were described in terms of age, sex, race, residence, education, occupation, income, expenditures, and stage of family development. Descriptions of high level participants are also given to point out differences between avid and average participants. Second, participation rates of respondents were compared with their socio-economic characteristics to determine effects of the various characteristics upon participation.

Age, Sex, Race, and Residence

The following data are presented for *all participants* and for *high level participants* in each of the 14 activities:

- Average age
- Distribution of sex (percent male and female)

11

- Distribution of race (percent white and non-white)
- Distribution of residence (percent rural non-farm, rural farm, and urban)

High level participants in each activity were selected if their participation, in activity days per year, was equal to or above the following standards:

Activity	Activity Days Participation
Sightseeing	20
Swimming	33
Picnicking	12
Power Boating	15
Canoeing-Rowing-Sailing	7
Golf	25
Fishing	15
Hunting	11
Horseback Riding	6
Camping	12
Water Skiing	12
Skin Diving	10
Ice Skating	6
Snow Skiing	8

Approximately 25 percent of all participants in each activity met or exceeded these standards. High level participants accounted for more than half of the total participation in each activity.

Age

Lowest average ages were for participants in active sports such as ice skating, horseback riding, swimming, snow skiing, and water skiing. Although there were older participants in these activities, the appeal was more to younger, more active people (Figure 5).

Highest average ages were for participants in relatively less strenuous sports such as golf, hunting, and fishing and in passive pursuits such as sightseeing (Figure 6).

Pre-teen and early teen participation in golf and hunting, the activities with highest average ages, is limited by skill level requirements and physical abilities.

Average ages of high level participants in the active sports of ice skating, horseback riding, and swimming are even lower than for all participants. On the other hand, high level participants in golf, hunting, and fishing are older than all participants in these activities.

Average age of all participants in all activities was 28.95 years (Table 6).

Age was significantly related to participation in only seven activities—swimming, canoeing-rowing-sailing, horseback riding, ice skating, golf, hunting, and fishing. Sightseeing, picnicking, power boating, and camping are open to all age groups, including the very young and very old, and were not found to be significantly related to age. Figures 5 and 6 show average relationships between age and participation rates as determined by curvilinear regression for the seven significantly related activities.

Sex

The entire population of the United States is almost evenly divided between males and females. Because of the slightly longer female life expectancy, there are slightly more females than males but the proportion does not deviate more than 1 percent from fifty-fifty. In this study, 50.07 percent of all people were males and 49.93 percent were females.

In this study, slightly more than 54 percent of all participants (in all activities) were males. Hunters, golfers, and fishermen were mostly males. Slightly more women than men participated in sightseeing, picnicking, horseback riding, and ice skating (Table 6).

The cultural definitions and expectations of society which shape behavioral norms for men and women provide an explanation for these patterns of outdoor recreational behavior by sex. For example, women traditionally are not expected to pursue game or fish for the purpose of killing them. In earlier societies this was man's vocation and in today's society it is almost exclusively his sport.

Analysis of participation rates of both sexes revealed that males participated significantly more (at a higher rate) in hunting, fishing, golf, power boating, and canoeing-rowing-sailing. Females did not participate significantly more than males in any activity (Table 6).

Race

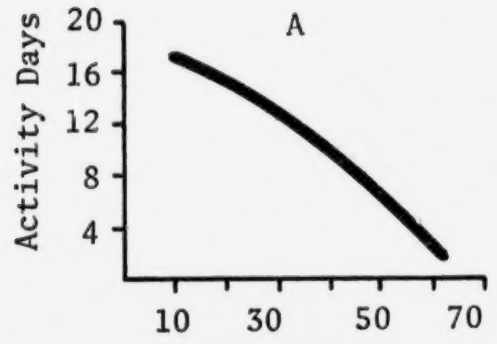
The population of Ohio was 91.8 percent white and 8.2 percent non-white in 1960. The percentages determined for the study area were 91.73 percent white and 8.27 percent non-white.

This study shows that non-whites were not proportionately represented as participants except in horseback riding, picnicking, sightseeing, and perhaps fishing. Non-whites were more than proportionately represented in the "other" category. Non-whites were not proportionately represented as high level participants except in fishing (Table 7).

Participation rates for whites were also higher than for non-whites except in sightseeing, fishing, hunting, and the "other" category (Table 2).

Analysis of variance indicates that non-whites participated significantly more than whites only in sightseeing. Whites participated at a significantily higher rate than non-whites in swimming, picnicking, canoeing-rowing-sailing, camping, and ice skating. The overall family participation rate was also significantly higher for whites.

Social and economic barriers are probably the major reason for lower participation by non-whites.



SWIMMING

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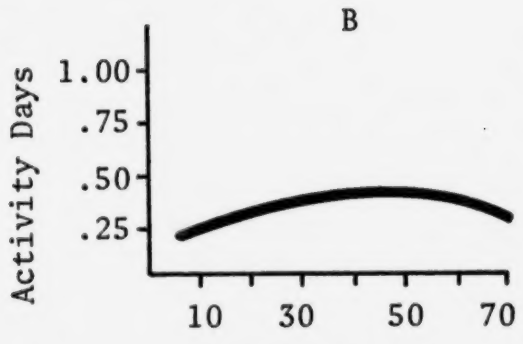
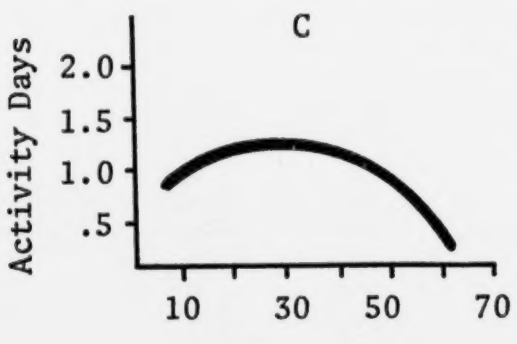


CANOEING - ROWING - SAILING

($y = a + bx + cx^2$, a = .105, b = .01328, c = -.0001508)



HORSEBACK RIDING

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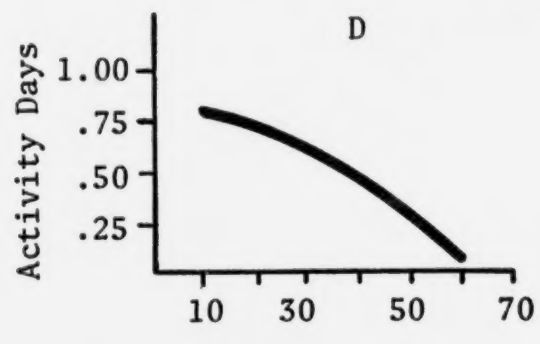
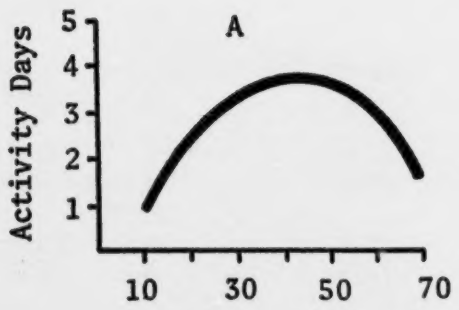


ICE SKATING

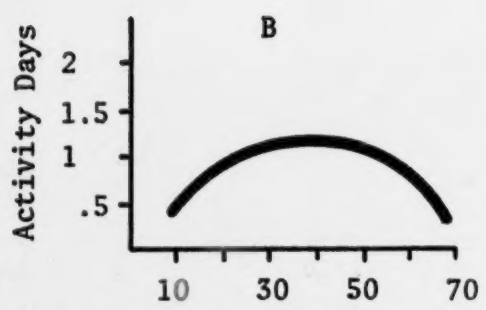
($y = a + bx + cx^2$, a = .793, b = .00161, c = -.0002332)

Fig. 5.—Relationship of Age and Participation in Four Outdoor Activities.



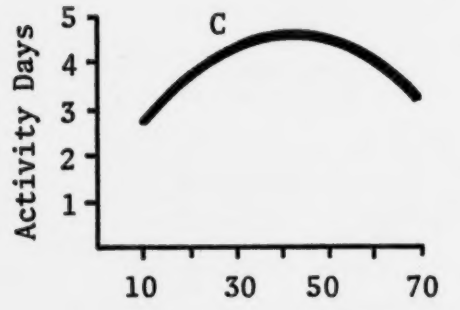
GOLF

($y = a + bx + cx^2$, a = -1.138, b = .24327, c = .0028784)



HUNTING

($y = a + bx + cx^2$, a = -.185, b = .07342, c = -.009574)



FISHING

($y = a + bx + cx^2$, a = 1.266, b = .15721, c = -.0018193)

Fig. 6.—Relationship of Age and Participation in Three Outdoor Activities.

Residence

Households in towns or cities of 2500 persons or more were classified as urban. The 1959 Census of Agriculture definition of a farm was used to classify rural people as farm or non-farm. The sample was stratified according to the proportion of rural to urban residents in the study area as reported in the 1960 Census of Population. However, most of the 24 schedules which had to be discarded were from rural areas. As a result, the sample of rural households was slightly low in proportion to the actual rural segment of the study area.

In this study, 84.44 percent of all persons were urban, 4.03 percent were rural farm, and 11.53 percent were rural non-farm. Rural farm people were not proportionately represented in any of the 14 activities except hunting. Rural non-farm people were very well represented among hunters and fishermen and were at least proportionately represented in picnicking, power boating, camping, and snow skiing.

Urban people accounted for especially high proportions of all participants in golf, skin diving, and canoeing-rowing-sailing. The percentage of urban participants was about average in power boating and picnicking but low in hunting and fishing (Table 7).

TABLE 6.—Characteristics of Participants in 14 Recreational Activities by Age, Sex, and Education.

	Age		Sex			Education	
	N*	Average Years	N	Percent Male	Percent Female	N	Average Years
Sightseeing							
All Participants	1732	29.08	1745	48.36	51.63	1079	12.39
High Level Participants	503	28.97	507	48.12	51.87	310	12.64
Swimming							
All Participants	1425	23.13	1431	50.03	49.96	729	12.94
High Level Participants	355	18.32	358	48.32	51.67	109	13.25
Picnicking							
All Participants	1826	27.19	1840	49.29	50.70	1077	12.18
High Level Participants	478	25.45	482	49.17	50.82	267	12.38
Power Boating							
All Participants	429	28.82	431	54.98	45.01	283	12.64
High Level Participants	108	29.81	108	60.18	39.81	72	13.43
Canoeing-Rowing-Sailing							
All Participants	169	28.51	169	55.02	44.97	106	13.48
High Level Participants	43	34.00	43	58.13	41.86	30	14.63
Golf							
All Participants	316	34.39	317	70.66	29.33	269	14.07
High Level Participants	98	38.83	98	69.38	30.61	89	14.20
Fishing							
All Participants	810	29.39	815	68.34	31.65	499	11.79
High Level Participants	213	33.60	216	70.37	29.62	154	11.23
Hunting							
All Participants	232	34.03	232	94.82	5.17	189	11.81
High Level Participants	60	34.67	60	95.00	5.00	49	11.12
Horseback Riding							
All Participants	183	20.55	183	46.44	53.55	82	13.22
High Level Participants	59	19.36	59	38.98	61.01	25	13.00
Camping							
All Participants	321	26.41	326	54.60	45.39	162	12.19
High Level Participants	86	24.47	89	59.55	40.44	40	12.83
Water Skiing							
All Participants	158	24.96	160	53.12	46.87	116	13.62
High Level Participants	41	26.51	41	58.53	41.46	29	13.34
Skin Diving							
All Participants	20	26.25	20	60.00	40.00	15	13.13
High Level Participants	6	23.33	6	50.00	50.00	3	13.33
Ice Skating							
All Participants	274	20.03	277	44.76	55.23	116	13.94
High Level Participants	85	17.92	88	44.31	55.68	26	13.85
Snow Skiing							
All Participants	61	23.93	61	52.45	47.54	46	14.63
High Level Participants	15	26.73	15	60.00	40.00	11	14.81
Other							
All Participants	519	28.82	521	59.88	40.11	334	12.62

*N=Number of observations included in the corresponding average or breakdown.

Average participation rates were generally higher for urban people than for rural people (Table 2). Furthermore, rural farm people generally had even lower participation rates than rural non-farm dwellers except in hunting, camping, and "other" activities. Rural farm people participated at higher rates than their city cousins in these activities.

Education and Occupation

Average years of formal education and a distribution of occupations are shown in this section for participants who were 18 years of age or older. Data for *all* and *high level* participants are shown in each of the 14 activities. This section deals only with participants 18 years of age or older because most younger persons have not yet finished their education and probably are not employed.

Education

Education was closely related to participation in nine activities. Education would definitely be considered an important factor affecting participation ex-

TABLE 7.—Characteristics of Participants in 14 Recreational Activities by Race and Residence.

	Race			Residence			
	N*	Percent White	Percent Non-White	N	Percent Rural Non-Farm	Percent Rural Farm	Percent Urban
Census—Ohio 1960		91.8	8.2		21.3	5.3	73.4
All Persons in Study	2756	91.73	8.27	2756	11.53	4.03	84.44
Sightseeing							
All Participants	1745	91.81	8.19	1745	9.79	3.03	87.18
High Level Participants	507	95.27	4.73	507	8.87	1.77	89.36
Swimming							
All Participants	1431	95.46	4.54	1431	9.08	1.88	89.04
High Level Participants	358	98.61	1.39	358	8.10	0.27	91.63
Picnicking							
All Participants	1840	91.64	8.36	1840	11.68	3.42	84.90
High Level Participants	482	92.74	7.26	482	7.05	1.86	91.09
Power Boating							
All Participants	431	96.29	3.71	431	12.99	3.48	83.53
High Level Participants	108	100.00	—	108	10.18	—	89.82
Canoeing-Rowing-Sailing							
All Participants	169	99.40	0.60	169	6.50	—	93.50
High Level Participants	43	100.00	—	43	2.32	—	97.68
Golf							
All Participants	317	96.85	3.15	317	5.67	—	94.33
High Level Participants	98	97.95	2.05	98	7.14	—	92.86
Fishing							
All Participants	815	92.15	7.85	815	14.96	3.19	81.85
High Level Participants	216	90.75	9.25	216	13.88	2.31	83.81
Hunting							
All Participants	232	93.54	6.46	232	20.68	8.18	71.14
High Level Participants	60	93.33	6.67	60	20.00	10.00	70.00
Horseback Riding							
All Participants	183	91.26	8.74	183	5.46	3.82	90.72
High Level Participants	59	93.23	6.77	59	6.77	1.69	91.54
Camping							
All Participants	326	99.39	0.61	326	11.04	2.14	86.82
High Level Participants	89	100.00	—	89	6.74	4.49	88.77
Water Skiing							
All Participants	160	100.00	—	160	9.37	1.87	88.76
High Level Participants	41	100.00	—	41	21.95	—	78.05
Skin Diving							
All Participants	20	100.00	—	20	—	—	100.00
High Level Participants	6	100.00	—	6	—	—	100.00
Ice Skating							
All Participants	277	95.67	4.33	277	9.02	2.16	88.82
High Level Participants	88	100.00	—	88	19.31	3.40	77.29
Snow Skiing							
All Participants	61	100.00	—	61	11.47	—	88.53
High Level Participants	15	100.00	—	15	—	—	100.00
Other							
All Participants	521	89.25	10.75	521	6.14	1.53	92.33

*N=Number of observations included in the corresponding average or breakdown.

cept that education is also closely related to occupation and income and all three of these factors seem to be interrelated. Since participation increased with education, a question could be raised as to whether this higher participation rate was due to the higher education levels or to the higher income levels which probably resulted from the better jobs of people with better educations.

The following observations are presented to illustrate average education levels of adult participants in the various activities and not to show cause and effect relationships.

Average years of formal education for adult participants in all activities were 12.42 years.

Highest educational levels were for participants in golf, snow skiing, ice skating, and water skiing. Lowest educational levels were for those who fish, hunt, picnic, and camp (Table 6).

In general, the activities showing lower educational levels of participants were those with relatively low costs to participate. Activities showing higher educational levels were higher cost activities except for ice skating. The activities with higher educational levels were relatively active and those with lower educational levels were of a less strenuous nature.

Occupation

Occupations of all persons 18 years of age and over were classified according to the 1960 Census of Population:

1. Professional, technical and kindred workers
2. Farmers and farm managers
3. Managers, officials and proprietors, except farm
4. Clerical and kindred workers
5. Sales workers
6. Craftsmen and kindred workers
7. Operatives and kindred workers
8. Private household workers
9. Service workers, except private household

Unemployed persons (students, housewives, retired persons), common laborers, and employed persons under 18 were not classified.

Persons in the *sales* class accounted for about 10.2 percent of all employed persons in the study. However, about 22 percent of the people who went water skiing one or more times during the year were sales people. By the same token, sales people were at least proportionally represented in all activities except horseback riding, camping, and ice skating.

Sales people seemed to be highest in terms of the relative percentages of participants in all activities. Their overall participation rate (activity days per year in all activities, as determined in a separate analysis) was also quite high.

Professional people accounted for a relatively high proportion of participants in all activities except fishing, hunting, and picnicking. Professional people had especially high proportions in golf and ice skating.

Participation rate of professional people was fairly low. Perhaps this is because their leisure time is limited, even though they have the desire and income to participate.

Managers, officials, and proprietors were the next best represented group, with above average representation in seven activities. Picnicking, fishing, hunting, water skiing, skin diving, and ice skating were below average and swimming was about average. This group ranked especially high in horseback riding. Overall participation rate was fairly low for this group, as it was for professional people.

Clerical people ranked fourth in terms of representation by participants in all activities. They were high in swimming, picnicking, horseback riding, water skiing, skin diving, ice skating, and snow skiing and below average in the other activities. They were especially well represented in horseback riding, skin diving, and snow skiing and their participation rate was quite high.

Operatives were average or below average in all activities except hunting, fishing, sightseeing, and swimming. Their participation rate was about average or slightly below.

Craftsmen ranked sixth and were average or below average in all activities except hunting, fishing, and camping. Their overall participation rate was also fairly low.

Farmers were under-represented in all activities except picnicking and hunting. Their participation rate was quite low.

Service workers were high in fishing, about average in picnicking, and low in all other activities. Their participation rate, however was quite high.

The sample of *private household workers* was too small to yield reliable results but this category seemed to be lowest of all in terms of representation in the various activities.

Appendix Table V gives details of occupations of participants in the form of a percent distribution of occupations by activities, as discussed in this section. It also shows the percentage distribution of occupations for high level participants. Appendix Table VI deals only with occupations of participants who are heads of households.

From an overall standpoint, occupation was rather closely related to participation. However, this relationship is useful in predicting or projecting participation only if there are noticeable differences in the occupational structure from one area to another or if there will be significant changes in the occupational structure over time.

16

TABLE 8.—Median and Average Family Income of Heads of Households Who Participated in 14 Outdoor Activities.

	N	Median	Average
All Ohioans in 1959 (Census Data)		$ 6,171	
Activity			
Sightseeing			
All Participants	503	$ 6,825	$ 7,782
High Level Participants	148	6,925	8,404
Swimming			
All Participants	304	7,375	8,393
Picnicking			
All Participants	498	6,650	7,357
High Level Participants	122	6,625	7,430
Power Boating			
All Participants	136	6,750	7,957
High Level Participants	33	8,875	9,694
Canoeing-Rowing-Sailing			
All Participants	46	8,200	9,226
High Level Participants	12	10,000	11,167
Golf			
All Participants	165	8,550	9,442
High Level Participants	58	9,525	10,424
Fishing			
All Participants	317	6,550	7,353
High Level Participants	99	6,475	7,579
Hunting			
All Participants	163	6.425	7,517
High Level Participants	41	6,950	7,412
Horseback Riding			
All Participants	31	7,150	7,358
High Level Participants	8	7,000	6,875
Camping			
All Participants	79	6,950	7,667
High Level Participants	19	7,100	7,500
Water Skiing			
All Participants	43	6,925	8,086
High Level Participants	11	8,925	10,864
Skin Diving			
All Participants	9	7,350	7,500
High Level Participants	2	8,500	8,500
Ice Skating			
All Participants	31	8,700	9,248
High Level Participants	8	8,750	9,125
Snow Skiing			
All Participants	14	6,825	8,014
High Level Participants	6	8,900	10,333

Income, Expenditures, and Life Cycle

Family Income

Family income is all income of family members from wages, salaries, commissions, tips, net business and farm income, social security, pensions, veterans payments, rent (minus expenses), interest, dividends, unemployment insurance, welfare payments, and other sources.

Respondents were not asked for precise income figures but were asked in which of the following ranges their family income fell:

$ 0- 999	$ 5,000- 5,999
1,000-1,999	6,000- 6,999
2,000-2,999	7,000- 9,999
3,000-3,999	10,000-14,999
4,000-4,999	15,000 and above

Discussion in this section is based primarily on median and average incomes calculated from midpoints of the above ranges of family incomes.

Median annual family income for all participants in all activities was approximately $6,950.

Median annual family incomes were above average for participants in swimming, canoeing-rowing-sailing, golf, horseback riding, skin diving, and ice skating. They were below average for picnicking, power boating, fishing, and hunting. Median family income was about average for participants in sightseeing, camping, water skiing, and snow skiing (Table 8 and Appendix Table VII).

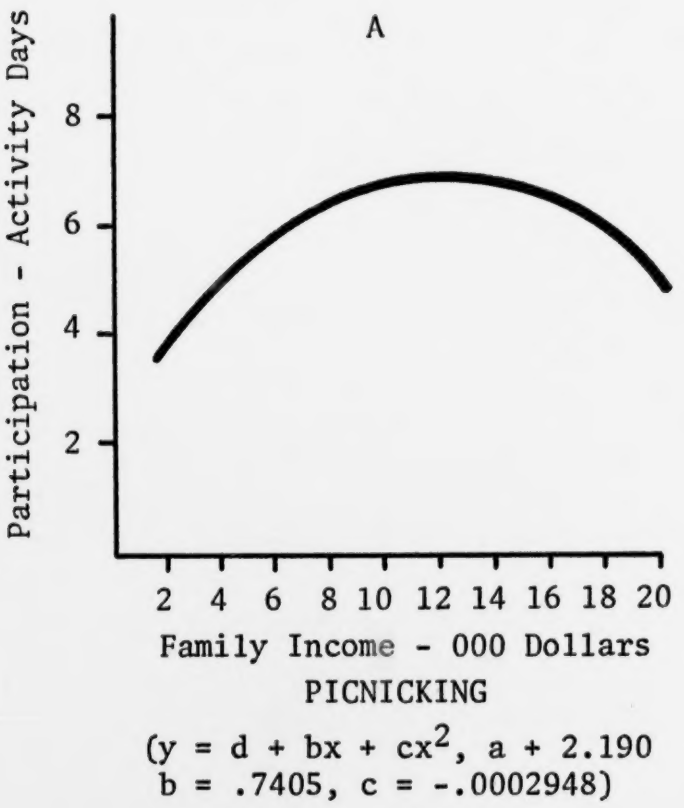
Highest median family incomes were for participants in ice skating and golf.

Lowest median family incomes were for participants in hunting and fishing.

Highest average family incomes were for participants in golf, canoeing-rowing-sailing, and ice skating.

Lowest average family incomes were for participants in fishing, picnicking, and horseback riding.

Average and median family incomes of high level participants were generally higher than incomes of all participants. The greatest differences between incomes of all participants and incomes of high level participants were in power boating, snow skiing, water skiing, and canoeing-rowing-sailing. The difference was considerable in these activities and in all four in-



PICNICKING

($y = d + bx + cx^2$, a + 2.190
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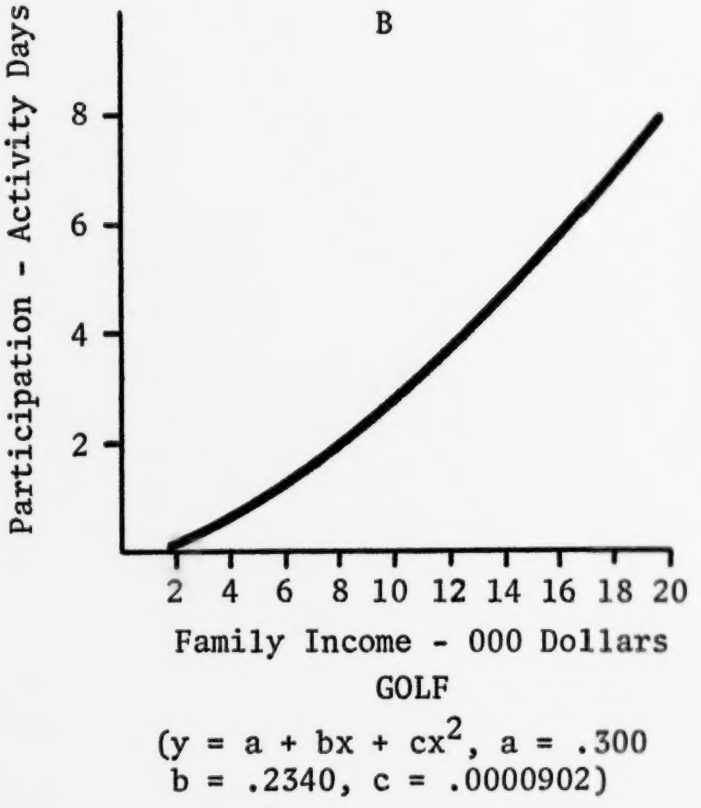

GOLF

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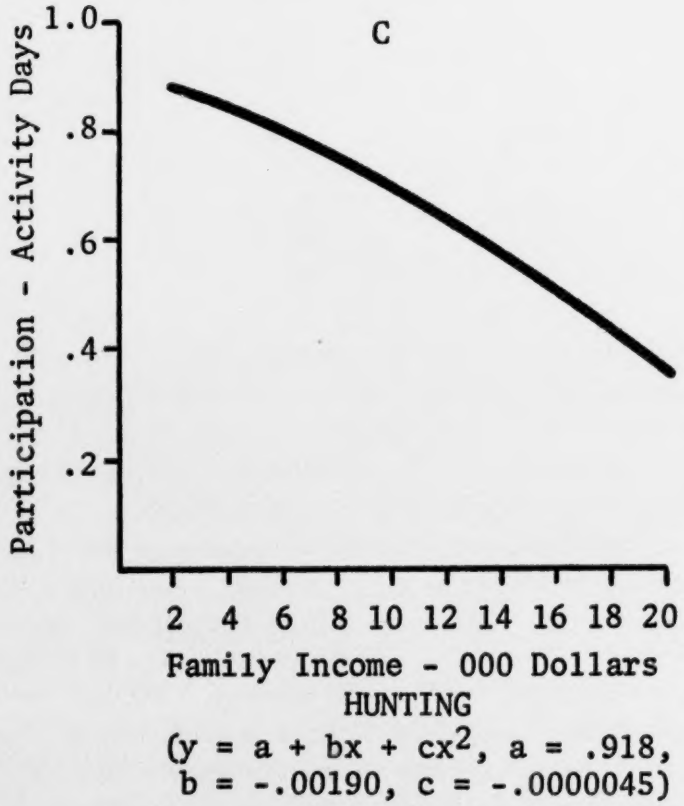
b = .2340, c = .0000902)



HUNTING

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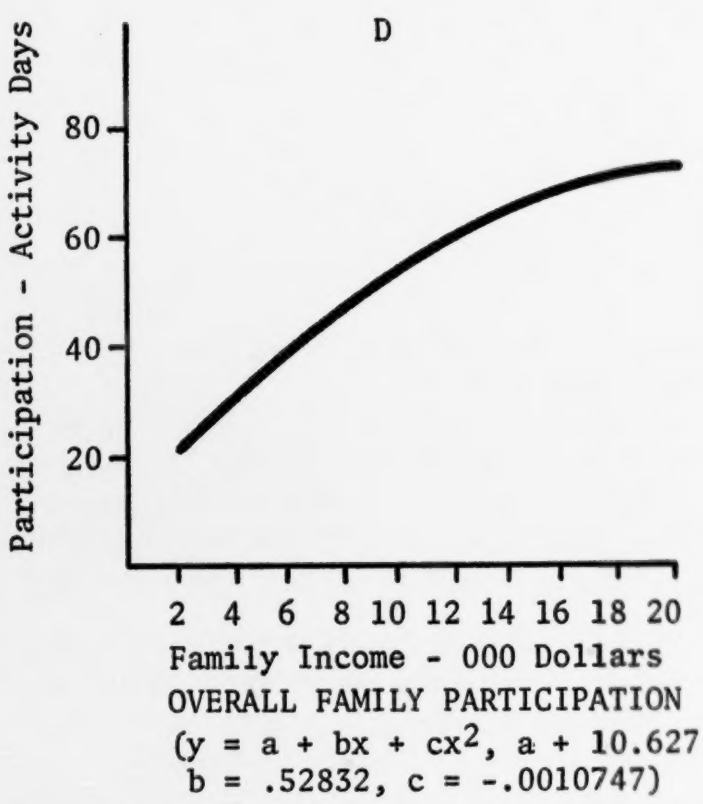
b = -.00190, c = -.0000045)



OVERALL FAMILY PARTICIPATION

($y = a + bx + cx^2$, a + 10.627,
b = .52832, c = -.0010747)

Fig. 7.—Relationship of Family Income and Participation in Three Outdoor Activities and Overall Family Participation.

stances, income of high level participants exceeded that of all participants.

Analysis of the relationships between income and participation may be more valuable than attempts to explain the differences in income among activities. Generally, people with higher family incomes participated more than people in lower-income families (Appendix Table VIII). Figures 7A, 7B, and 7C illustrate three types of relationships. For golf, participation increased as income increased. For hunting, participation decreased as income increased. For picnicking, participation increased with income up to about $9,000 or $10,000 per year and then began to decline as income continued to increase.

Figure 7D shows that overall family participation (participation of all family members in all outdoor activities) increased as income increased. The greatest rate of increase was in the income range of $0 to $12,000 per year, after which the increase was somewhat slower.

Expenditures for Outdoor Recreation

Each household was requested to supply information on amounts of money they spent for all outdoor recreation equipment and for all other outdoor recreation purposes (fees, travel, licenses, etc.). The amounts reported could not be allocated to specific recreation activities, but average family expenditures for all outdoor activities were tabulated by heads of households who were participants in the various activities.

Expenditures were generally higher for participants in the costlier activities (Table 9). For example, average family expenditures of heads of house-

TABLE 9.—Family Expenditures for Outdoor Recreation.

	N*	Equipment	Other	Total
Sightseeing				
All Participants	503	$112	$166	$278
High Level Participants	148	144	197	341
Swimming				
All Participants	304	144	198	342
High Level Participants	30	258	295	553
Picnicking				
All Participants	498	111	159	270
High Level Participants	122	176	198	374
Power Boating				
All Participants	136	197	256	453
High Level Participants	33	423	445	868
Canoeing-Rowing-Sailing				
All Participants	46	134	279	413
High Level Participants	12	175	213	388
Golf				
All Participants	165	152	235	387
High Level Participants	58	177	280	457
Fishing				
All Participants	317	115	169	284
High Level Participants	99	117	184	301
Hunting				
All Participants	163	140	154	294
High Level Participants	41	143	163	306
Horseback Riding				
All Participants	31	87	213	300
High Level Participants	8	138	175	313
Camping				
All Participants	79	197	196	393
High Level Participants	19	258	192	450
Water Skiing				
All Participants	43	348	272	620
High Level Participants	11	568	391	959
Skin Diving				
All Participants	9	200	233	433
High Level Participants	2	200	450	650
Ice Skating				
All Participants	31	97	284	381
High Level Participants	8	88	269	357
Snow Skiing				
All Participants	14	221	254	475
High Level Participants	6	283	192	475

*N=Number of observations.

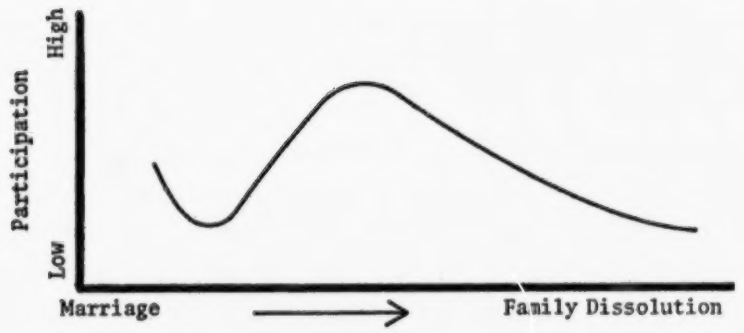


Fig. 8.—Relationship of Overall Family Participation to the Normal Family Life Cycle.

holds were much higher for water skiers ($959) than for picnickers ($270).

Average expenditures of high-level participants were higher than expenditures of all participants in most activities.

Expenditures for outdoor recreation equipment were generally lower than expenditures for other outdoor recreation purposes. Water skiing was an exception, probably because unusually costly equipment is required for this activity.

In Table 9, double counting of family expenditures exists to the extent that heads of households engaged in more than one outdoor activity.

The following ranks activities by average income and expenditures from high to low:

Income	Expenditures
Golf (highest)	Water Skiing (highest)
Ice Skating	Snow Skiing
Canoeing	Power Boating
Swimming	Skin Diving
Water Skiing	Canoeing
Snow Skiing	Camping
Power Boating	Golf
Sightseeing	Ice Skating
Camping	Swimming
Hunting	Horseback Riding
Skin Diving	Hunting
Horseback Riding	Fishing
Picnicking	Sightseeing
Fishing (lowest)	Picnicking (lowest)

These rankings suggest that:

a) Lower income people tended to participate in the lowest cost activities (skin diving was an exception).

b) Middle income people tended to participate in the higher cost activities.

c) High income people tended to participate in the moderately costly activities.

Family Life Cycle

For purposes of this study, each head of household was placed into one of the following family life cycle classifications according to the stage of development of his (or her) current family situation.

1. Single person living alone
2. Pre-child married couple
3. All children under 10
4. Some children over 10
5. Children living at home, all over 10
6. All children away from home; both parents at home
7. Husband or wife alone
8. Husband or wife only (with children)
9. Unrelated individuals living together

Families with children under 10 (category 3) had a rather low overall participation rate. However, 23 percent or more of all participants in 13 of the 14 activities were from this category, even though only 20.88 percent of all families in the study were in category 3. More than 30 percent of all swimmers, horseback riders, water skiers, skin divers, ice skaters, and snow skiers were in category 3 (Appendix Table IX). This indicates that they participated in several outdoor activities, although not at a very high rate.

Family participation was relatively high when the family was formed by marriage but dropped off sharply as children were born (Figure 8). Participation increased as the children matured and then began a gradual decline until the family was broken by death of head or spouse. Single persons living alone, husband or wife only (with children), and unrelated individuals living together were not included in the "normal" family life cycle.

Overall participation rates of single persons and unrelated individuals living together were below average. Overall participation of husband or wife only (with children) was slightly above average, probably because young widows, widowers and divorcees fit into this category.

Other Factors Associated with Participation

Favorite Activity

The "favorite outdoor activity or sport" of all persons 12 years of age or older was reported in this study. Respondents made their own interpretations of the question. Replies ranged from the commonplace (attending outdoor sports events and swimming) to the exotic (flying and deep sea diving).

The five most often mentioned favorite activities of heads of households were fishing, golf, attending sports events, hunting, and swimming, in that order. Wives preferred swimming, sightseeing, fishing, gardening, and golf. Children and other family members preferred swimming, attending sports events, fishing, tennis, and golf.

The ranking of overall favorite activities of all family members combined is shown on page 21 with a ranking of the activities actually engaged in most by all family members.

Ranking of Favorite Activity	Ranking of Actual Participation
Swimming	Swimming
Fishing	Sightseeing
Attending Outdoor Sports Events	Picnicking
Golf	Fishing
Sightseeing	Golf
Gardening	Boating
Hunting	Camping
Tennis	Horseback Riding
Camping	Hunting
Picnicking	Water Skiing
Outdoor Games	Ice Skating
Boating	Skin Diving
Horseback Riding	Snow Skiing
Water Skiing	
Snow Skiing	

The preceding rankings are fairly similar, indicating that, in general, people are able to indulge their preferences in outdoor recreation.

Participation in gardening, tennis, outdoor games, and attending outdoor sports events was not measured in this survey. These four activities were mentioned among the 15 "favorite" activities and, as shown by Appendix Table I, were engaged in quite often.

Leisure Time

Several questions were asked during the interview with regard to leisure time. Although no score or measurement of leisure time could be obtained, several interesting relationships between participation and leisure time factors were noted.

The most important leisure time factors are hours in work week, time spent traveling to and from work, and hours per week committed to school, church, and social activities by head of household. These factors were compared with overall family participation and found to be significant (99 percent level). They were also compared with participation in the various activities and were found significant in several instances.

Overall family participation was related positively to hours of work week and leisure time committed to school, church, and civic activities. This indicates that people active at work and in civic affairs are also likely to be more active in outdoor recreation, which might not be suspected in view of the fact that longer work weeks and more civic commitments certainly detract from available leisure time. Time spent traveling to and from work was inversely related to overall family participation; the more travel time, the lower the participation rate.

Number of days of annual paid vacation was not significantly related to overall family participation but was positively related to camping—a relatively long-term family activity which is usually engaged in as part of a vacation trip. Families in which the head of household had longer vacations tended to camp more.

Factors Limiting Participation

Respondents were asked, "What were the most important factors that limited your and your family's participation in outdoor recreation?" Limiting factors, listed in order of the incidence of replies to this question, were:

Limiting Factor	Percent of Replies
Lack of time	30
Lack of money	14
Health and age	13
Other recreation preferred	11
Small children in family	8
Lack of facilities	6
Dissatisfaction with facilities	5
Time conflict	4
Lack of or inadequate transportation	2
Other	7

Lack of time was the limiting factor mentioned most often, which might lead one to conclude that shorter scheduled work weeks would result in higher participation rates. Yet just the opposite was true in the short run, at least. Participation was positively associated with length of work week.

Lack of (or inadequate) transportation was mentioned least often as a factor limiting participation. Traffic and road conditions were not found to be significantly related to participation.

Health of head of household and spouse was ascertained in terms of good, fair, and poor. Little or no significance was found between health and participation in the various activities. However, health of head of household and health of spouse were related at the 5 percent level to overall family participation. Participation was higher if health of head of household and spouse was good.

21

SUMMARY

In this study of outdoor recreation, 776 families provided data on participation in 1963. This sample represented a cross section of the urban and rural population of southern Ohio and nearby areas of West Virginia and Kentucky. These data indicate tthat participation varies widely according to social and economic characteristics of participants. The study was conducted to determine relationships between participation and characteristics in order to advise private individuals and public officials on present and future needs for recreational development.

The most popular outdoor activities, according to percent of population participating, were picnicking, sightseeing, swimming, and fishing. The most avid participants, according to number of activity days per participant, were swimmers, golfers, sightseers, equestrians, fishermen, and water skiers, in that order. Participation of urban and rural non-farm people was generally higher than for farm people. Whites participated more than non-whites in most activities.

Recreationists traveled farther for longer term experiences such as camping than for shorter term activities such as swimming. The speed of travel for recreation was closely associated with distance. Highest average speeds were for the longer trips.

Significant relationships were found between participation in the various outdoor activities and a number of participant characteristics. For example, males accounted for somewhat more than 50 percent of all outdoor recreation, especially in hunting, golf and fishing. Average ages were highest for participants in golf, hunting, fishing, and sightseeing. Lowest average ages were for ice skaters, equestrians, and swimmers.

Participation was closely related to a socio-economic scale consisting of three interrelated factors—education, occupation, and income. In general, people with higher-paying occupation, higher incomes, and higher educational levels participated more.

Golfers and snow skiers had relatively high educational levels compared to fishermen and hunters. Golfers also had the highest average incomes. Sales, professional, and managerial workers participated at a higher level than farmers and service workers.

Leisure time factors affecting overall family participation most were time spent by head of household traveling to and from work and hours in the work week of the head of household. Family participation declined as travel time increased but generally increased as work week of head of family increased.

Lack of time was the most important factor limiting participation, followed by lack of money.

APPENDIX

TABLE I.—"Other" Activities.

Activity	Number of Days	Percent of Total
Outdoor Games and Sports		
Baseball	85	
Tennis	51	
Football	29	
Basketball	9	
"Ball"	3	
Volleyball	4	
Kickball	1	
Croquet	4	
Badminton	6	
Horseshoes	4	
Miniature Golf	3	
Shuffleboard	1	
Archery	6	
Jarts	2	
Outdoor Bowling	2	
Boxing	1	
Total	211	62
Spectator Sports		
Baseball	32	
Football	8	
"Ball Games"	2	
Auto Races	5	
Total	47	14
Miscellaneous		
Gardening	23	
Walking and Hiking	14	
Sledding and Sleigh Riding	9	
Bicycling	7	
Shooting—trap, skeet, target	4	
Outdoor Photography	4	
Track	4	
Flying	3	
Roller Skating (outdoor)	3	
Drag Racing	2	
Stock Car Racing	2	
Go-cart Racing	1	
Motorcycling	2	
Traveling	1	
Running Dogs	2	
Trapping	1	
Sun Bathing	1	
Total	83	24
Grand Total	341	

23

TABLE II.—Average Number of Activity Days of Participation per Year per Person and per Participant, by Household Member.

	Head		Spouse		Children		Other	
	Per Person	Per Participant	Per Person	Per Participant	Per Person	Per Participant	Per Person	Per Participant
Sightseeing	10.69	16.50	11.10	16.40	9.71	15.86	3.95	9.96
Swimming	5.47	13.97	8.32	19.25	19.81	29.69	2.13	22.33
Picnicking	5.29	8.24	5.73	8.58	6.39	9.13	2.51	6.58
Power Boating	1.82	10.40	1.62	10.45	1.76	11.51	0.16	10.00
Canoeing-Rowing-Sailing	0.36	6.00	0.27	5.03	0.31	4.54	0.19	6.00
Golf	4.62	21.72	2.11	21.97	0.85	12.64	0.83	17.33
Fishing	5.70	13.95	2.63	13.13	3.00	10.39	0.57	7.20
Hunting	1.88	8.93	0.04	6.00	0.42	8.16	—	—
Horseback Riding	0.58	14.45	0.54	20.44	1.30	11.98	—	—
Camping	0.82	8.05	0.83	8.43	1.22	8.39	—	—
Water Skiing	0.58	10.44	0.48	10.90	0.88	12.71	0.16	10.00
Skin Diving	0.06	5.44	0.04	7.25	0.04	7.71	—	—
Ice Skating	0.16	4.00	0.22	4.14	1.01	6.04	0.13	4.00
Snow Skiing	0.16	9.07	0.11	5.85	0.13	4.73	0.22	14.00
Other	4.94	22.03	2.20	16.04	4.66	23.57	2.49	15.70

TABLE III.—Percent of Household's Activity Accounted for by Each Family Member and Percent of Individual's Activity Accounted for by Each Outdoor Activity, by 14 Activities.

	Percent of Household's Total Activity Days of Participation Accounted for by Each Family Member					Percent of Individual's Total Activity Days Accounted for by Each Activity			
	Head	Spouse	Children	Other	Total	Head	Spouse	Children	Other
Sightseeing	29.52	26.78	42.81	0.89	100	24.80	30.61	18.87	29.64
Swimming	12.29	16.31	71.01	0.39	100	12.69	22.93	38.49	15.95
Picnicking	25.54	24.19	49.29	0.98	100	12.26	15.81	12.41	18.81
Power Boating	30.12	23.35	46.32	0.21	100	4.23	4.46	3.41	1.19
Canoeing-Rowing-Sailing	32.28	21.75	44.57	1.40	100	0.82	0.76	0.60	1.43
Golf	58.63	23.36	17.16	0.85	100	10.71	5.81	1.64	6.19
Fishing	44.43	17.93	37.28	0.36	100	13.21	7.26	5.82	4.29
Hunting	72.51	1.49	26.00	—	100	4.35	0.12	0.82	—
Horseback Riding	18.50	15.20	66.30	—	100	1.34	1.50	2.52	—
Camping	23.46	20.84	55.70	—	100	1.90	2.30	2.37	—
Water Skiing	23.90	17.40	58.17	0.53	100	1.34	1.33	1.71	1.19
Skin Diving	37.12	21.97	40.91	—	100	0.15	0.12	0.08	—
Ice Skating	8.06	9.69	81.73	0.52	100	0.37	0.61	1.97	0.95
Snow Skiing	34.05	20.38	41.82	3.75	100	0.38	0.31	0.24	1.67
Other	34.05	13.25	51.31	1.39	100	11.45	6.07	9.05	18.69
						100	100	100	100

TABLE IV.—Percent Distribution and Cumulative Percent of Miles Traveled, One Way, for Participation in 14 Outdoor Activities.

	N*	1-2	3-4	5-6	7-10	11-15	16-20	21-25	26-30	31-40	41-50	51-70	71-100	101-150	151-200	201-300	301-400	401-500	501-700	701-1000	1001-2000
Sightseeing	464	0.2	0.7	0.7	3.9	5.2	6.3	6.9	9.0	9.5	20.1	6.3	16.1	6.9	1.5	3,2	0.9	0.7	1.3	0.2	0.4
			0.9	1.6	5.5	10.7	17.0	23.9	32.9	42.4	62.5	68.8	84.9	91.8	93.3	96.5	97.4	98.1	99.4	99.6	100.0
Swimming	404	32.7	8.2	10.4	19.1	10.9	7.2	2.5	1.2	2.2	1.7	1.2	1.7	0.7	—	—	0.3	—	—	—	—
			40.9	51.3	70.4	81.3	88.5	91.0	92.2	94.4	96.1	97.3	99.0	99.7			100.0				100.0
Picnicking	489	7.8	8.8	8.6	18.6	15.4	10.6	6.5	4.7	5.9	5.9	3.3	2.9	0.8	—	—	—	0.2	—	—	—
			16.6	25.2	43.8	59.2	69.8	76.3	81.0	86.9	92.8	96.1	99.0	99.8				100.0			100.0
Power Boating	146	6.2	3.4	9.6	17.1	8.9	10.2	5.5	5.5	4.8	3.4	4.8	7.5	4.8	2.1	4.1	—	0.7	1.4	—	—
			9.6	19.2	36.3	45.2	55.4	60.9	66.4	71.2	74.6	79.4	86.9	91.7	93.8	97.9		98.6	100.0		100.0
Canoeing-Rowing-Sailing	57	1.8	5.3	1.8	19.2	7.0	10.5	7.0	3.5	8.8	5.3	10.5	3.5	3.5	1.8	3.5	—	3.5	3.5	—	—
			7.1	8.9	28.1	35.1	45.6	52.6	56.1	64,9	70.2	80.7	84.2	87.7	89.5	93.0		96.5	100.0		100.0
Golf	185	9.7	16.8	22.7	25.9	16.2.	6:0	1.1	1.1	—	—	—	0.5	—	—	—	—	—	—	—	—
			26.5	49.2	75.1	91.3	97.3	98.4	99.5				100.0								100.0
Fishing	332	4.2	4.8	7.5	14.8	13.6	9.4	7.2	5.1	5.7	3.3	7.9	6.6	2.4	1.5	2.4	0.3	0.9	2.1	0.3	—
			9.0	16.5	31.3	44.9	54.3	61.5	66.6	72.3	75.6	83.5	90.1	92.5	94.0	96.4	96.7	97.6	99.7	100.0	100.0
Hunting	148	2.0	3.4	5.4	8.1	4.1	6.7	8.8	6.1	10.1	12.8	7.4	11.5	2.7	2.7	3.4	2.0	—	1.4	1.4	—
			5.4	10.8	18.9	23.0	29.7	38.5	44.6	54.7	67.5	74.9	86.4	89.1	91.8	95.2	97.2		98.6	100.0	100.0
Horseback Riding	81	6.2	6.2	16.1	19.8	13.6	12.4	1.2	2.5	6.2	1.2	4.0	1.2	1.2	4.9	1.2	1.2	—	—	—	—
			12.4	28.5	48.3	61.9	74.3	75.5	78.0	84.2	85.4	90.3	91.5	92.7	97.6	98.8	100.0				100.0
Camping	113	2.7	2.7	0.9	1.8	7.9	6.2	6:2	4.4	7.1	7.1	5.3	19.3	5.3	9.7	5.3	1.8	2.7	0.9	1.8	0.9
			5.4	6.3	8.1	16.0	22.2	28.4	32.8	39.9	47.0	52.3	71.6	76.9	86.6	91.9	93.7	96.4	97.3	99.1	100.0
Water Skiing	77	6.5	6.5	15.6	16.8	9.1	7.8	9.1	3.9	3.9	—	2.6	6.5	1.3	2.6	5.2	—	1.3	—	1.3	—
			13.0	28.6	45.4	54.5	62.3	71.4	75.3	79.2		81.8	88.3	89.6	92.2	97.4		98.7		100.0	100.0
Skin Diving	11	18.2	—	—	18.2	9.1	9.1	—	—	9.1	9.1	—	—	—	9.1	18.1	—	—	—	—	—
					36.4	45.5	54.6			63.7	72.8				81.9	100.0					100.0
Ice Skating	100	41.0	20.0	13.0	19.0	5.0	—	1.0	1.0	—	—	—	—	—	—	—	—	—	—	—	—
			61.1	74.0	93.0	98.0		99.0	100.0												100.0
Snow Skiing	35	8.6	5.7	2.9	—	2.9	—	—	—	5.7	2.9	37.0	14.3	—	—	5.7	5.7	5.7	—	2.9	—
			14.3	17.2		20.1				25.8	28.7	65.7	80.0			85.7	91.4	97.1		100.0	100.0
Other	228																				

*N=Number of reports.

TABLE V.—Percent Distribution of Participants 18 Years of Age or Older in Each Occupation Classification,* by Overall Study Results and by 14 Outdoor Activities.

	N†	Professional, Technical 1	Farmers 2	Managers, Officials 3	Clerical 4	Sales 5	Craftsmen, Foremen 6	Operatives 7	Household Workers 8	Service Workers, Etc. 9
All employed adults in study if 18 years old or older‡	814	21.62	3.32	13.27	12.04	10.20	24.19	6.76	0.86	7.74
Sightseeing										
All Participants	534	24.55	2.99	14.24	11.24	9.73	22.48	7.86	0.74	6.17
High Level Participants	144	20.15	3.47	18.07	7.63	11.81	25.00	9.02	0.69	4.16
Swimming										
All Participants	370	25.15	1.08	13.24	14.32	11.62	21.90	7.29	—	5.40
High Level Participants	39	33.33	—	12.82	5.12	12.82	28.23	5.12	—	2.56
Picnicking										
All Participants	521	21.70	3.64	11.90	12.85	10.55	24.79	6.71	0.57	7.29
High Level Participants	130	17.70	2.30	11.53	13.85	13.08	24.63	4.61	—	12.30
Power Boating										
All Participants	136	25.75	2.94	14.70	9.55	12.50	23.54	6.61	—	4.41
High Level Participants	37	18.92	—	13.51	13.51	18.92	27.04	5.40	—	2.70
Canoeing-Rowing-Sailing										
All Participants	55	29.10	—	14.54	7.27	18.18	23.65	5.45	—	1.81
High Level Participants	14	21.42	—	7.14	7.14	35.74	14.28	7.14	—	7.14
Golf										
All Participants	182	37.38	—	14.28	10.98	18.70	14.83	3.29	—	0.54
High Level Participants	60	43.35	—	11.66	8.33	18.33	18.33	—	—	—
Fishing										
All Participants	294	19.06	2.38	10.54	5.44	12.93	32.99	8.50	—	8.16
High Level Participants	91	10.99	—	10.99	2.19	7.69	41.77	10.99	—	15.38
Hunting										
All Participants	154	14.29	5.84	11.69	3.89	10.38	37.03	11.04	—	5.84
High Level Participants	38	10.52	2.63	10.52	5.26	10.52	47.40	7.89	—	5.26
Horseback Riding										
All Participants	44	27.29	2.27	22.72	27.29	6.81	6.81	2.27	—	4.54
High Level Participants	14	28.57	—	28.57	35.72	—	7.14	—	—	—
Camping										
All Participants	77	33.78	1.29	15.58	6.49	5.19	29.89	3.89	—	3.89
High Level Participants	18	55.57	5.55	—	—	5.55	16.67	11.11	—	5.55
Water Skiing										
All Participants	59	23.75	1.69	10.16	15.25	22.05	20.33	5.08	—	1.69
High Level Participants	14	21.42	—	14.28	—	28.57	35.73	—	—	—
Skin Diving										
All Participants	14	28.57	—	—	35.73	14.28	14.28	—	—	7.14
High Level Participants	3	—	—	—	33.34	33.33	33.33	—	—	—
Ice Skating										
All Participants	56	39.30	1.78	1.78	19.65	8.92	21.43	3.57	—	3.57
High Level Participants	13	23.08	—	—	23.08	15.38	23.08	7.69	—	7.69
Snow Skiing										
All Participants	23	26.09	—	17.40	26.09	13.04	13.04	4.34	—	—
High Level Participants	10	20.00	—	20.00	30.00	10.00	10.00	10.00	—	—

*Occupation Codes—Census Classification:
1. Professional, Technical, and Kindred Workers
2. Farmers and Farm Managers
3. Managers, Officials, and Proprietors, except Farm
4. Clerical and Kindred Workers
5. Sales Workers
6. Craftsmen, Foremen, and Kindred Workers
7. Operatives and Kindred Workers
8. Private Household Workers
9. Service Workers

†N=Number of observations included in the corresponding breakdown.
‡Excludes students, retired persons, housewives, and common laborers.

TABLE VI.—Percent Distribution of Heads of Households in Each Occupation Classification,* by Overall Study Results and by 14 Outdoor Activities.

	N†	Professional, Technical 1	Farmers 2	Managers, Officials 3	Clerical 4	Sales 5	Craftsmen, Foremen 6	Operatives 7	Household Workers 8	Service Workers, Etc. 9
All employed heads of households in study if 18 or over‡	597	21.10	4.02	15.91	5.53	10.89	29.98	7.54	—	5.03
Sightseeing										
All Heads of Households	400	22.50	3.75	17.50	6.00	10.75	27.00	8.75	—	3.75
High Level Heads of Households	115	18.27	3.47	20.00	4.34	13.05	28.71	9.56	—	2.60
Swimming										
All Heads of Households	266	24.83	1.12	16.91	6.01	13.53	25.96	8.64	—	3.00
High Level Heads of Households	28	32.16	—	17.85	—	17.85	25.00	3.57	—	3.57
Picnicking										
All Heads of Households	392	21.18	4.08	15.05	6.37	11.47	29.61	7.65	—	4.59
High Level Heads of Households	98	19.39	3.06	14.28	8.16	15.30	29.61	5.10	—	5.10
Power Boating										
All Heads of Households	107	28.05	3.73	17.75	3.73	14.02	25.25	6.54	—	0.93
High Level Heads of Households	28	21.42	—	17.85	3.57	25.00	28.59	3.57	—	—
Canoeing-Rowing-Sailing										
All Heads of Households	42	28.59	—	19.04	—	19.04	26.19	7.14	—	—
High Level Heads of Households	10	30.00	—	10.00	—	40.00	10.00	10.00	—	—
Golf										
All Heads of Households	151	35.10	—	16.55	5.96	21.20	17.88	3.31	—	—
High Level Heads of Households	52	40.40	—	13.46	5.76	19.23	21.15	—	—	—
Fishing										
All Heads of Households	257	18.67	2.72	11.28	3.89	13.23	36.60	8.17	—	5.44
High Level Heads of Households	77	11.68	—	11.68	1.29	7.79	46.80	10.38	—	10.38
Hunting										
All Heads of Households	142	14.10	6.33	12.67	3.52	9.15	38.75	11.26	—	4.22
High Level Heads of Households	33	9.09	3.03	12.12	3.03	9.09	51.52	6.06	—	6.06
Horseback Riding										
All Heads of Households	26	19.25	3.84	34.63	15.38	11.53	11.53	3.84	—	—
High Level Heads of Households	6	—	—	50.00	33.33	—	16.67	—	—	—
Camping										
All Heads of Households	63	28.60	1.58	17.46	4.76	4.76	36.50	4.76	—	1.58
High Level Heads of Households	15	46.67	6.67	—	—	6.67	20.00	13.33	—	6.66
Water Skiing										
All Heads of Households	39	23.09	2.56	12.82	5.12	28.20	23.09	5.12	—	—
High Level Heads of Households	11	27.27	—	18.19	—	27.27	27.27	—	—	—
Skin Diving										
All Heads of Households	9	44.45	—	—	22.22	11.11	22.22	—	—	—
High Level Heads of Households	2	—	—	—	50.00	—	50.00	—	—	—
Ice Skating										
All Heads of Households	30	36.67	3.33	3.33	6.67	16.67	30.00	3.33	—	—
High Level Heads of Households	7	28.57	—	—	14.29	28.57	28.57	—	—	—
Snow Skiing										
All Heads of Households	14	28.58	—	28.58	7.14	21.42	7.14	7.14	—	—
High Level Heads of Households	6	16.67	—	33.32	16.67	16.67	—	16.67	—	—

*Occupation Codes—Census Classification:
1. Professional, Technical, and Kindred Workers
2. Farmers and Farm Managers
3. Managers, Officials, and Proprietors, except Farm
4. Clerical and Kindred Workers
5. Sales Workers
6. Craftsmen, Foremen, and Kindred Workers
7. Operatives and Kindred Workers
8. Private Household Workers
9. Service Workers

†N=Number of observations included in the corresponding breakdown.
‡Excludes students, retired persons, housewives, and common laborers.

TABLE VII.—Percent Distribution of Family Incomes of Heads of Households Who Are Participants for Ohio (Census Findings) and by 14 Outdoor Activities (Study Findings).

		Percent Distribution									
	N	$0-999	$1000-1999	$2000-2999	$3000-3999	$4000-4999	$5000 5999	$6000-6999	$7000-9999	$10,000-14,999	$15,000- and More
State of Ohio, 1959*		3.7	5.7	6.3	7.7	10.7	13.8	12.4	23.5	11.7	4.5
Sightseeing											
All Participants	503	7.55	2.18	2.38	4.57	7.15	11.72	17.11	23.87	14.73	8.74
High Level Participants	148	6.08	2.02	1.35	2.70	6.75	15.54	16.90	20.29	14.86	13.51
Swimming											
All Participants	304	5.92	0.65	0.98	2.63	6.90	11.85	17.77	26.99	15.79	10.52
High Level Participants	30	—	—	—	6.67	—	10.00	13.33	33.33	16.67	20.00
Picnicking											
All Participants	498	7.83	2.40	2.81	5.02	8.03	13.06	16.87	24.10	13.66	6.22
High Level Participants	122	5.73	0.81	3.27	5.73	5.73	20.50	13.12	28.72	9.02	7.37
Power Boating											
All Participants	136	8.08	4.41	1.47	3.67	11.02	9.55	16.18	19.14	13.24	13.24
High Level Participants	33	6.07	3.03	3.03	—	9.09	3.03	12.12	21.21	21.21	21.21
Canoeing-Rowing-Sailing											
All Participants	46	4.34	2.17	—	2.17	2.17	6.52	21.75	26.09	21.75	13.04
High Level Participants	12	—	—	—	—	—	8.33	16.67	25.00	25.00	25.00
Golf											
All Participants	165	7.27	—	—	1.21	4.24	6.67	15.75	26.67	23.65	14.54
High Level Participants	58	5.17	—	—	—	6.89	1.72	8.62	32.77	24.15	20.68
Fishing											
All Participants	317	6.94	1.26	1.89	6.62	9.77	14.82	15.47	24.32	12.61	6.30
High Level Participants	99	4.04	1.01	2.02	6.06	11.11	17.17	18.18	20.21	12.12	8.08
Hunting											
All Participants	163	2.45	1.84	2.45	8.58	11.04	16.57	16.57	20.88	11.65	7.97
High Level Participants	41	4.87	—	2.43	7.31	12.20	17.09	7.31	34.17	7.31	7.31
Horseback Riding											
All Participants	31	9.67	3.22	—	6.45	12.90	6.45	9.67	29.06	19.36	3.22
High Level Participants	8	—	—	—	12.50	—	25.00	12.50	50.00	—	—
Camping											
All Participants	79	1.26	2.53	2.53	5.06	3.79	12.66	24.06	32.93	10.12	5.06
High Level Participants	19	—	—	—	—	5.26	15.78	26.31	47.39	5.26	—
Water Skiing											
All Participants	43	2.32	2.32	2.32	2.32	11.62	13.96	16.28	25.60	13.96	9.30
High Level Participants	11	—	—	—	—	—	9.09	9.09	45.46	9.09	27.27
Skin Diving											
All Participants	9	—	—	—	—	22.22	11.11	11.11	44.45	11.11	—
High Level Participants	2	—	—	—	—	—	—	—	100.00	—	—
Ice Skating											
All Participants	31	3.22	3.22	—	3.22	3.22	6.45	9.67	35.51	25.82	9.67
High Level Participants	8	—	—	—	—	—	12.50	—	62.50	25.00	—
Snow Skiing											
All Participants	14	7.14	—	—	—	—	14.28	35.74	21.42	14.28	7.14
High Level Participants	6	—	—	—	—	—	—	16.67	50.00	16.67	16.66
Other											
All Participants	174	8.04	2.30	2.30	4.59	6.32	8.62	21.26	24.15	13.23	9.19

*1960 Census of Population.

TABLE VIII.—Participation in 14 Activities and Overall Family Participation at Nine Income Levels.

	Activity Days Participation at Nine Annual Income Levels								
	$1,000	$2,000	$4,000	$6,000	$8,000	$10,000	$12,000	$16,000	$20,000
Sightseeing	6.951	7.505	8.555	9.531	10.431	11.256	12.006	13.281	14.255
Swimming	0.103	2.258	6.302	9.996	13.338	16.329	18.968	23.193	26.014
Picnicking	2.901	3.553	4.680	5.572	6.227	6.647	6.831	6.491	5.208
Power Boating	0.163	0.336	0.716	1.137	1.601	2.107	2.656	3.880	5.273
Canoeing-Rowing-Sailing	0.166	0.107	0.115	0.157	0.233	0.343	0.487	0.877	1.403
Golf	0.057	0.204	0.780	1.429	2.149	2.942	3.807	5.753	7.988
Fishing	3.185	3.308	3.500	3.621	3.669	3.644	3.548	3.138	2.439
Hunting	0.898	0.878	0.835	0.788	0.737	0.683	0.625	0.499	0.358
Horseback Riding	0.073	0.177	0.394	0.624	0.866	1.121	1.388	1.959	2.580
Camping	0.042	0.208	0.633	0.959	1.185	1.313	1.341	1.100	0.462
Water Skiing	0.079	0.016	0.213	0.422	0.643	0.875	1.119	1.641	2.210
Skin Diving	0.096	0.057	0.007	0.056	0.088	0.104	0.104	0.055	0.058
Ice Skating	0.126	0.004	0.239	0.443	0.615	0.755	0.864	0.985	0.978
Snow Skiing	0.057	0.017	0.054	0.112	0.156	0.188	0.206	0.204	0.149
Overall Family Participation	15.802	20.763	30.040	38.457	46.014	52.712	58.549	67.646	73.303

TABLE IX.—Percent Distribution of Participation in 14 Outdoor Activities by State of Family Development.

		State of Family Development*								
	N	1	2	3	4	5	6	7	8	9
All Families	771	2.46	6.10	20.88	16.99	25.94	17.77	4.02	5.19	0.65
Sightseeing										
All Participants	499	2.00	6.21	23.85	18.84	25.06	16.23	2.20	5.41	0.20
High Level Participants	146	1.36	6.16	25.35	21.24	18.50	19.87	0.68	6.84	—
Swimming										
All Participants	303	2.31	9.90	30.37	18.48	27.39	6.60	1.32	3.63	—
High Level Participants	29	—	10.34	37.94	13.79	27.59	10.34	—	—	—
Picnicking										
All Participants	495	1.81	5.25	24.45	21.62	23.64	15.36	2.42	5.05	0.40
High Level Participants	121	0.82	6.61	24.80	27.28	19.84	14.88	1.65	3.30	0.82
Power Boating										
All Participants	135	0.74	7.40	26.67	20.01	25.93	12.59	5.18	1.48	—
High Level Participants	33	—	6.06	18.18	18.18	39.40	12.12	3.03	3.03	—
Canoeing-Rowing-Sailing										
All Participants	46	2.17	8.69	23.92	23.92	21.74	15.22	2.17	—	2.17
High Level Participants	12	8.33	8.33	—	25.00	16.66	33.35	8.33	—	—
Golf										
All Participants	164	3.04	9.75	28.67	15.25	28.06	12.20	0.60	2.43	—
High Level Participants	58	8.62	8.62	13.79	13.79	32.77	15.52	1.72	5.17	—
Fishing										
All Participants	316	0.94	4.43	24.37	23.42	25.96	16.78	1.58	2.21	0.31
High Level Participants	99	2.02	5.05	19.19	21.21	30.31	20.20	—	2.02	—
Hunting										
All Participants	162	0.61	6.17	29.63	24.70	25.31	12.35	—	1.23	—
High Level Participants	41	—	7.31	34.16	21.95	21.95	14.63	—	—	—
Horseback Riding										
All Participants	31	6.45	9.67	32.27	19.36	16.13	6.45	—	9.67	—
High Level Participants	8	12.50	12.50	25.00	12.50	12.50	—	—	25.00	—
Camping										
All Participants	77	1.29	5.19	19.48	16.88	39.00	15.58	1.29	1.29	—
High Level Participants	18	—	5.55	16.66	33.34	38.90	5.55	—	—	—
Water Skiing										
All Participants	43	2.32	16.27	39.55	18.60	20.94	—	—	2.32	—
High Level Participants	11	—	9.09	27.27	18.18	45.46	—	—	—	—
Skin Diving										
All Participants	9	11.11	22.22	33.34	22.22	11.11	—	—	—	—
High Level Participants	2	50.00	—	—	—	50.00	—	—	—	—
Ice Skating										
All Participants	31	—	3.22	41.95	16.12	22.59	6.45	—	9.67	—
High Level Participants	8	—	12.50	25.00	12.50	25.00	—	—	25.00	—
Snow Skiing										
All Participants	14	7.14	14.28	57.16	7.14	7.14	—	—	7.14	—
High Level Participants	6	16.67	16.67	50.00	—	—	—	—	16.66	—

*1. Single Person Living Alone
2. Pre-child Married Couple
3. All Children Under 10
4. Some Children Over 10
5. Children Living at Home All Over 10
6. All Children Away from Home, Both Parents at Home
7. Husband or Wife Alone
8. Husband or Wife Only (with Children)
9. Unrelated Individuals Living Together

30

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